

## The Colorado Department of Military and Veterans Affairs (DMVA)

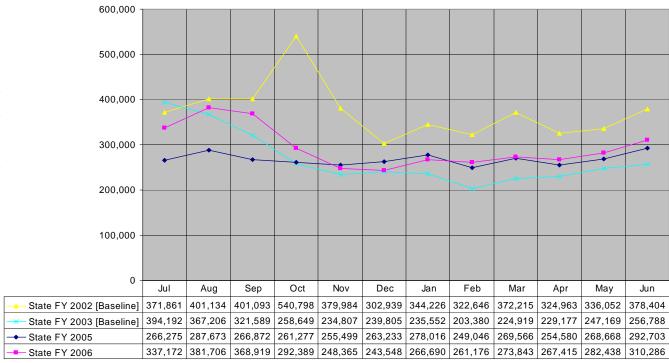
Greening the State Government Implementation Plan

August 30, 2006

Prepared by Brett Jackson (brett.d.jackson@us.army.mil, 720-250-1364)

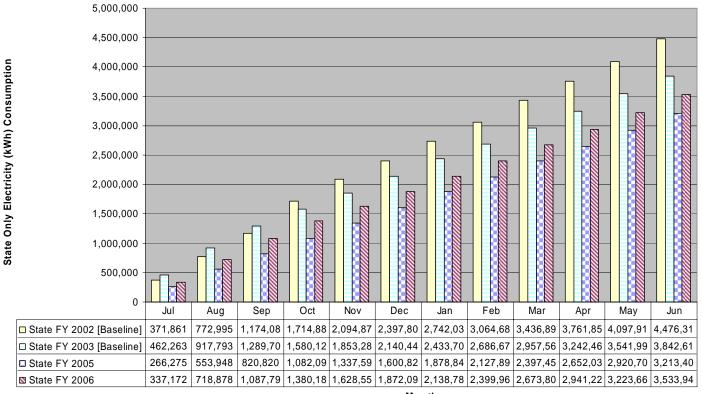
- 1. Agency Background and Supporting Information:
  - 1.1. The DMVA supports over 3000 Army National Guard Troops responsible for State and National missions, and is commonly referred to at the Colorado Army National Guard (COARNG).
  - 1.2. Please see included energy usage graphs (below). You will notice that we have decreased our usage since our established baseline years (State FY 2002 & 2003). However, it should be noted that the reason (in part) for the consumption increase between State FY 2005 and 2006 was due to increased operational tempo to support the hurricane relief effort.

## **Electricity Consumption Comparison**



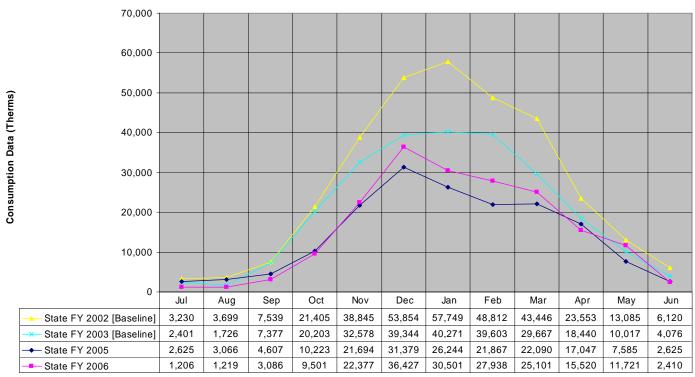
DRAFT

By-Month <u>Cumulative</u> Electricity Consumption Comparison



Month

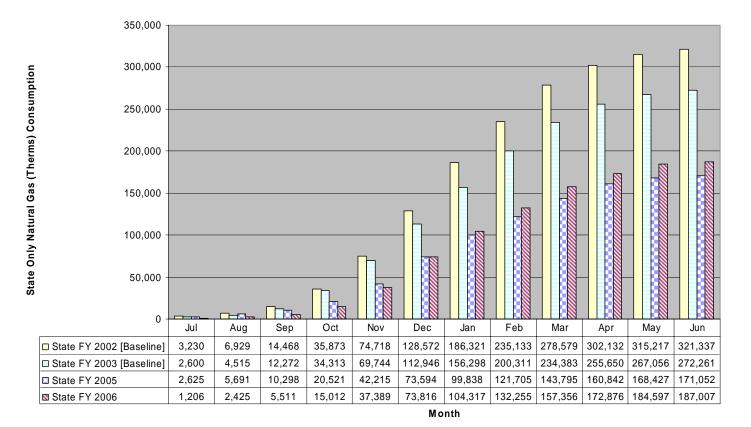
#### **Natural Gas Consumption Comparison**



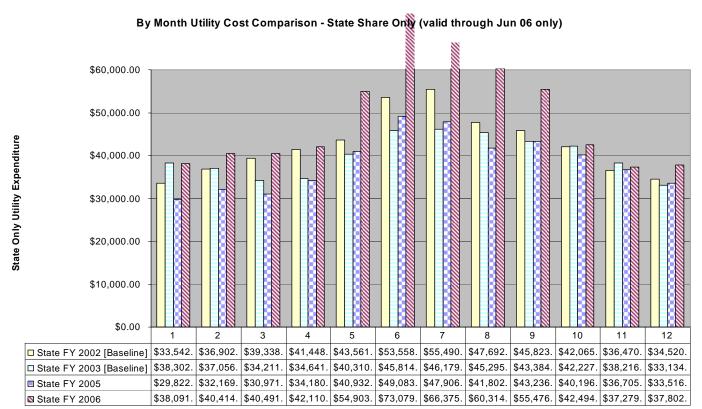
Month

DRAFT

#### By-Month Cumulative Natural Gas Consumption Comparison

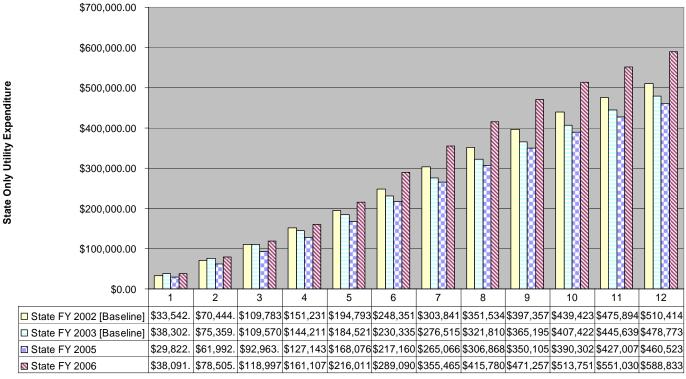


1.3. Please see included total utility expenditure graphs (below):



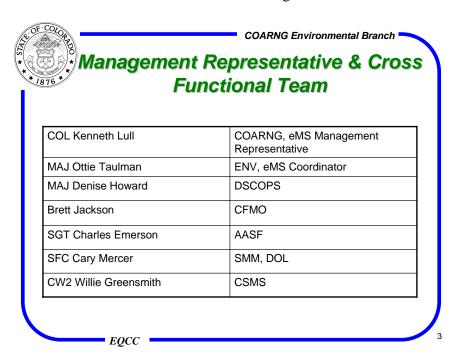
**DRAFT** 

#### By Month Cumulative Utility Cost Comparison - State Share Only (valid through Jun 06 only)



Month

- 1.4. Environmental Management System (eMS) development:
  - 1.4.1. Nearly 3 years ago, the DMVA formed a Cross Functional Team to develop and Environmental Management System. At the time, the eMS Cross Functional Team was configured as follows:



#### **DRAFT**

1.4.2. Although the DMVA greening government team has not yet been formally identified, we anticipate that it will be situated in a similar fashion to the eMS cross functional team. The cross functional team was configured to represent the directorates that had a significant environmental impact. Due to the high operational tempo of the Colorado Army National Guard, some of the eMS cross functional team members may have to be replaced with other personnel.

# 2. Long-Term Goals/Vision:

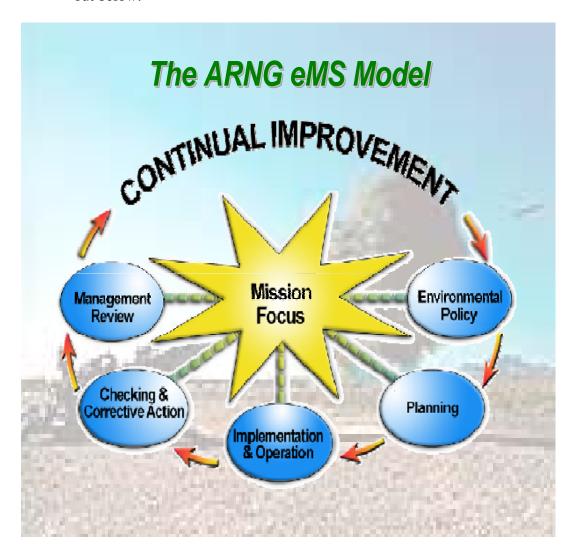
2.1. The COARNG Environmental Policy Statement (as signed by the Department's Executive Director, Maj Gen Mason C. Whitney) is:

The solders of the Colorado Army National Guard are a professional military force composed of men and women dedicated to performing their Federal, State and community support missions. Trained and ready soldiers are our primary product. The activities that support the training and readiness of these soldiers are located in the thirty-two armories and facilities across the entire state.

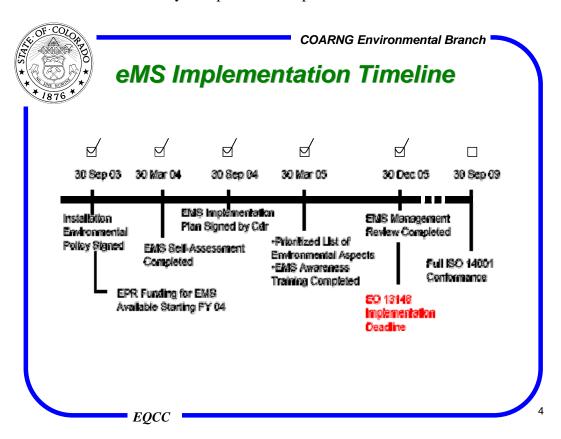
As good stewards of our environment, soldiers of the Colorado Army National Guard are seriously committed to both military readiness and environmental stewardship. In order to achieve this melding of military readiness and environmental stewardship, the Colorado Army National Guard is committed to:

- Continuous improvement in our environmental programs and performance metrics.
- Establish and review the significant environmental aspects and ensure that they are considered when setting the reviewing objectives and targets in our environmental management programs.
- Minimizing our pollution of land, water and air to the extent that our mission allows.
- Maintaining compliance with all applicable Federal, State and local environmental laws and regulations, and to those other requirements to which we subscribe.

2.2. The Army National Guard (ARNG) eMS continual improvement model is laid out below:



2.3. The timeline that was initially set up for eMS implementation was:



- 3. Actions and Priorities:
  - 3.1. As part of the eMS process, we identified 4 significant environmental targets and objectives and they are:
    - Energy Source Depletion (Natural Gas and Electricity)
    - Soil Contamination (Waste Generation)
    - Surface and Ground Water Contamination (POL Spills)
    - Air Quality Degradation (paint booth operation and VOC's)

3.2. During the eMS process we identified some long term objectives that coincided with our significant Environmental Impacts, which may be expanded upon at a later date (below):



COARNG Environmental Branch

# Extent to which Targets & Objectives have been met

Prioritized Target & Objective	Target/Object 001 Energy Source Depletion (reduce 20% by FY-15)	Target/Object 002 Soil Contamination (reduce 20% by FY-10)	Target/Object 003 Surface/Ground Water Contamination (reduce 20% by FY-10)	Target/Object 004 Air Quality Degradation (reduce 20% by FY-10)
Baseline Data Measuring Units	FY-03  ■ 6.6 KWH per S/F,per YR  ■ .52 BTU per S/F, per YR	FY-05  • Lbs of hazardous waste generated and disposed per YR	FY-05  Gals of POL spilled per YR	<ul><li>FY-05</li><li>Estimated lbs of VOCs emitted per FY</li></ul>

**EQCC** 

10

- 3.3. Although we are continually reviewing our efforts to ensure compliance with all the goals of the greening the state government initiative, some of the action steps that are currently underway to reduce our dependency on fossil fuels are:
  - Continual refinement of the eMS plan
  - Work schedule modification to a 4-10 work week

#### **DRAFT**

- Pilot agency for Energy Performance Contract in the mid 1990's
- Continual energy efficiency upgrades to include lighting and HVAC upgrades
- Statewide Energy Management control systems
- Active and Passive solar opportunities to include the installation of a Transpired Solar Collector and passive solar day-lighting strategies
- Building commissioning and re-commissioning efforts
- LEED-NC strategies for our Military Construction Projects
- 4. Develop Management Systems and Integrate Greening Government into Decision Making:
  - 4.1. In addition to our eMS, DMVA has incorporated an Internal Control Process (ICP) used to assist in the management of many agency programs to include (but not limited to) the energy and environmental programs.
  - 4.2. Secondly, The Military Decision Making Process (MDMP) is a strategy that is employed to assist in sound decision making at all levels.
- 5. Track and Report on Progress (Measure and Report):
  - 5.1. Numerous reporting strategies have been implemented to ensure agency success.
  - 5.2. The pertinent sustainability reports include (but not limited to):
    - Annual and monthly energy usage report to the Dept of Defense (DOD)
    - Monthly and Quarterly energy reports to the deputy director and Chief of Staff respectively
    - Annual energy reports to the State coordinating committee
    - Energy comparison against 2005 EPACT established baseline of 2003